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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,646	01/07/2002	Folker Beck	09002-US	9275

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Deere & Company
John Deere Road
Moline, IL 61265-8098

EXAMINER

GIBSON, ERIC M

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

10/039,646

Applicant(s)

BECK ET AL.

Examiner

Eric M Gibson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1 and 3-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claims 1 and 3 recite the limitation "the working element" in line 8. There is insufficient antecedent basis for this limitation in the claims. There is no prior recitation of a "working element" in the claims. There is only a "working machine" and a "movable element" recited.

b. Claims 4-18 are necessarily rejected as being dependent upon a rejected base claim.

c. Claim 19 recites the limitation "the working element" in line 13. There is insufficient antecedent basis for this limitation in the claim. There is no prior recitation of a "working element" in the claim. There is only a "working machine" and a "movable element" recited.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 6-12, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Chow et al. (US004353199A).

As per claims 1 and 3, Chow teaches a monitoring device for monitoring the function of a working machine including at least one sensor (32, figure 4) that generates a sensed signal containing information on the noise caused by at least one movable element of the working machine, wherein a computer (64, figure 4) that receives the signal of the sensor and generates an output signal based on the sensed signal and a comparative value (column 4, lines 40-44), wherein the signal contains information on the noise caused by a material processing or conveying element.

a. As per claim 4, Chow teaches that the sensor is an acoustic sensor (column 3, line 52).

b. As per claim 6, Chow teaches that the sensor is in direct mechanical contact with the working element (column 3, lines 32-33).

c. As per claim 7, Chow teaches that the noise is acoustically transmitted to the sensor (column 3, lines 57-60).

d. As per claims 8-10, Chow teaches generating an output signal if the value detected by the sensor is greater than a threshold (column 4, lines 41-42).

e. As per claims 11 and 12, Chow teaches that the comparative value corresponds to a reference voltage. Inherent in setting a reference is that it can be a reference for whatever the designers require.

f. As per claim 19, Chow teaches an agricultural working machine including a frame (13, figure 1), wheels (25, figure 1), a movable element (roll 15, figure 1), an operator's cab from which the machine is controlled (column 2, lines 31-32), and a monitoring device for monitoring the function of a working machine including at least one sensor (32, figure 4) that generates a sensed signal containing information on the noise caused by at least one movable element of the working machine, wherein a computer (64, figure 4) that receives the signal of the sensor and generates an output signal based on the sensed signal and a comparative value (column 4, lines 40-44), wherein the signal contains information on the noise caused by a material processing element.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chow in view of Klinner (US004720962A).

a. As per claim 5, Chow teaches the invention as explained in the rejection of claim 1. Chow only teaches an acoustic sensor, not a motion sensor. Klinner teaches an object detecting system for a harvesting machine that indicates that a multitude of sensors would suffice for object detection (column 11, lines 35-39). It would have been obvious to one of ordinary skill in the art, at the time of invention, to include a motion sensor for object detection in the system of Chow as an alternative means to detect an object as is well-known in the art, as exemplified by Klinner.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chow in view of McGovern et al. (US005955674A).

a. As per claim 18, Chow teaches the invention as explained in the rejection of claim 1. Chow does not teach that the values of the signals are recorded and stored by the computer. It is well-known in the art to provide a data logger or vehicle history database on the vehicle in order for diagnostics or to allow the owner to study trends in the malfunction data that may indicate maintenance is needed. McGovern is exemplary of this well-known concept in the art of providing a data logger to keep a record of malfunctions (see column 5, lines 40-50). It would have been obvious to one of ordinary skill in the art, at the time of invention, to record and store the signal values in the

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system of Chow, in order to provide for a diagnostics history, as is well-known in the art, exemplified by McGovern.

Allowable Subject Matter

5. Claims 13-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

a. As per claim 13, the prior art does not teach or reasonably suggest in combination the present invention including that the computer assigns the sensed signal to the movable element of the working machine. In the Chow reference, the sensed signal is associated by default with the movable element, however, there is no direct assignation of the incoming data to that particular movable element within the scope of the claimed limitation.

b. Claims 14-17 would serve to further define the invention of claim 13 over the prior art.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Digman et al. (US006269618B1 and US006298641B1) teaches acoustic stone detection on a feederhouse of an agricultural combine. Christiansen et al. (US006430903B1) teaches a non-metallic debris detector for harvester equipment.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

EMG


MICHAEL J. ZANELLI
PRIMARY EXAMINER